

I CLAIM AS MY INVENTION:

1. A press for flattening dough pieces comprising:
 - a main frame supportable on a floor of a workplace;
 - a sub frame supportable by said main frame;
 - adjustment mechanisms positioned between said sub frame and said main frame to permit leveling and adjustment of said sub frame relative to said main frame;
 - attachment mechanisms for securing said sub frame to said main frame following adjustment of said sub frame relative to said main frame;
 - a conveyor belt formed at least partially of a plastic material movably carried on at least one of said frames and presenting an upper horizontal surface along at least a portion of its length;
 - at least one upper and one lower, vertically opposed, movable platens carried on at least one of said frames;
 - both of said platens being movable in a longitudinal horizontal direction parallel with a moving direction of said upper horizontal surface of said belt;
 - said upper one of said platens being movable in a vertical direction toward and away from said conveyor belt;
 - a linear actuator drivingly connected to said two movable platens;
 - a servo motor drivingly connected to said linear actuator;
 - a carriage to which said two movable platens are mounted;
 - at least two linear guide rods supporting said carriage for linear movement;
 - a loading system for loading dough balls onto said moving upper surface of said conveyor belt;

said loading system comprising a transport mechanism arranged to receive dough balls in a sequential stream and to deliver said dough balls to said moving conveyor belt at a speed equal to a speed of said upper surface of said conveyor belt.;

said transport mechanism comprising a drop tube having an upper opening for receiving said sequential stream of dough balls, a pocket wheel positioned below an open bottom end of said drop tube and above said upper surface of said conveyor belt, said pocket wheel having a plurality of depressions in an outer circumference thereof to receive dough balls from said drop tube, and a servo motor drivingly connected to said pocket wheel; and

a belt splicing hot press carried on said frame operatively engageable with said belt to splice together severed ends of said belt to form a continuous endless belt.

2. A press according to claim 1, including a control for receiving a signal indicative of a speed of said upper surface of said conveyor belt and for generating a signal to said servo motor to control a speed of said motor so that said dough balls carried in said depressions of said pocket wheel are delivered to said upper surface of said conveyor belt at a said speed of said upper surface.

3. A press according to claim 1, including belt hold down clamps secured to said frame and engageable with said upper surface of said belt.

4. A press according to claim 1, wherein said belt splicing hot press comprises a vertically movable upper platen having a heating element therein and engageable with said upper surface of said belt and a stationary lower platen having a heating element therein and engageable with a lower surface of said belt.

5. A press according to claim 1, including a support frame for said loading system, said support frame being mounted on wheels and being movable relative to said main frame.

6. A press according to claim 1, including an arch style H frame carried on said carriage for supporting said upper platen.

7. A press according to claim 6, wherein said H frame carries a hydraulic cylinder with a vertically movable piston.

8. A press according to claim 1, wherein said movable piston includes an adjustable hard stop mechanism for preventing movement of said piston beyond a preselected downward position.

9. A press according to claim 1, including a removable free form die plate secured to a lower face of said upper platen.

10. A press according to claim 9 including a quick release retaining mechanism for securing said die plate to said upper platen.

11. A press for flattening dough pieces comprising:
 - a main frame supportable on a floor of a workplace;
 - a sub frame supportable by said main frame;
 - adjustment mechanisms positioned between said sub frame and said main frame to permit leveling and adjustment of said sub frame relative to said main frame;
 - attachment mechanisms for securing said sub frame to said main frame following adjustment of said sub frame relative to said main frame;
 - an endless conveyor belt movably carried on at least said sub frame and presenting an upper horizontal surface along at least a portion of its length;
 - at least one movable platen carried on at least one of said frames and positioned to compressingly engage said conveyor belt.
12. A press according to claim 11, wherein said at least one movable platen comprises two movable platens and both of said platens being movable in a longitudinal horizontal direction parallel with a moving direction of said upper horizontal surface of said belt and at least one of said platens being movable in a vertical direction.
13. A press according to claim 11, wherein said adjustment mechanisms comprise jack screws extending between said main frame and said sub frame at a plurality of positions.
14. A press according to claim 11, wherein said attachment mechanism comprises a plurality of threaded fasteners.

15. A press for flattening dough pieces comprising:

a frame supportable on a floor of a workplace;

an endless conveyor belt movably carried on said frame and presenting an upper horizontal surface along at least a portion of its length;

at least two movable platens carried on at least one of said frames;

both of said platens being movable in a longitudinal horizontal direction parallel with a moving direction of said upper horizontal surface of said belt;

at least one of said platens being movable in a vertical direction

a linear actuator drivingly connected to said two movable platens.

16. A press according to claim 15, including a servo motor drivingly connected to said linear actuator.

17. A press according to claim 15, including a carriage to which said two movable platens are mounted and at least two linear guide rods supporting said carriage for linear movement.

18. A press for flattening dough pieces comprising:

a frame supportable on a floor of a workplace;

an endless conveyor belt movably carried on said frame and presenting an upper horizontal surface along at least a portion of its length;

at least one movable platen carried on said frame;

a loading system for loading dough balls onto said moving upper surface of said conveyor belt;

said loading system comprising a transport mechanism arranged to receive dough balls in a sequential stream and to deliver said dough balls to said moving conveyor belt at a speed equal to a speed of said upper surface of said conveyor belt.

19. A press according to claim 18, wherein said transport mechanism comprises a drop tube having an upper opening for receiving said sequential stream of dough balls, a pocket wheel positioned below an open bottom end of said drop tube and above said upper surface of said conveyor belt, said pocket wheel having a plurality of depressions in an outer circumference thereof to receive dough balls from said drop tube, and a servo motor drivingly connected to said pocket wheel.

20. A press according to claim 19, including a control for receiving a signal indicative of a speed of said upper surface of said conveyor belt and for generating a signal to said servo motor to control a speed of said motor so that said dough balls carried in said depressions of said pocket wheel are delivered to said upper surface of said conveyor belt at a said speed of said upper surface.

21. A press according to claim 19, including a dough ball retaining shoe positioned along a circumference of said pocket wheel.

22. A press according to claim 19, including a chute receiver and guide mounted at said upper opening of said drop tube.

23. A press according to claim 19, including a photo eye located in said drop tube for detecting the presence of a dough ball in said drop tube.

24. A press according to claim 18, including a support frame for said loading system, said support frame being mounted on wheels and being movable relative to said frame.

25. A press according to claim 24, including attachment mechanisms for securing said support frame to said frame.

26. A press for flattening dough pieces comprising:
a frame supportable on a floor of a workplace;
a conveyor belt formed at least partially of a plastic material movably carried on said frame and presenting an upper horizontal surface along at least a portion of its length;
at least one movable platen carried on said frame for pressing said dough pieces against said upper surface of said belt;
a belt splicing hot press carried on said frame operatively engageable with said belt to splice together severed ends of said belt to form a continuous endless belt.

27. A press according to claim 26, including belt hold down clamps secured to said frame and engageable with said upper surface of said belt.

28. A press according to claim 26, wherein said belt splicing hot press comprises a vertically movable upper platen having a heating element therein and engageable with said

upper surface of said belt and a stationary lower platen having a heating element therein and engageable with a lower surface of said belt.